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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): En-Hsing Chen, et al.

Title: NAND MEMORY ARRAY INCORPORATING MULTIPLE SERIES  
SELECTION DEVICES AND METHOD FOR OPERATION OF SAME

Application No.: 10/729,865 Filed: December 5, 2003

Examiner: Nguyen, Van Thu T. Group Art Unit: 2824

Atty. Docket No.: 023-0029 Confirmation No.: 8494

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March 15, 2005

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**INFORMATION DISCLOSURE STATEMENT**  
**37 C.F.R. § 1.97(b)**

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- Form(s) PTO/SB/08A (5 page(s), with copy of 4 reference(s)).
- Form(s) PTO/SB/08B (2 page(s), with copy of 20 reference(s)).
- Listing of Pending Applications (1 page(s), with copy of no application(s)).
- Other: N/A

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For each item of information listed that is not in the English language, the undersigned has provided a concise explanation of the relevance through (i) an English language abstract, (ii) an English language equivalent application, or (iii) if cited in a search report or other action by a foreign patent office in a counterpart foreign application, an English language version of the search report or action that indicates the degree of relevance found by the foreign office.

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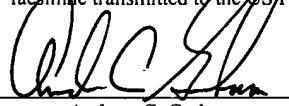
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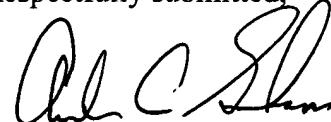


Andrew C. Graham

3-15-05

Date

Respectfully submitted,



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PTO/SB/08A (Substitute for form 1449/PTO)		Attorney Docket No.: 023-0029
		Application No.: 10/729,865
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		First Named Inventor: <i>En-Hsing Chen et al.</i>
		Filing Date: December 5, 2003
		Group Art Unit: 2824
		Examiner Name: <i>Van Thu Nguyen</i>
Sheet 1 of 5		Date Submitted: March 15, 2005

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	AA	4,142,176	02-27-1979	Dozier	
	AB	4,543,594	09-24-1985	Mohsen et al.	
	AC	4,602,354	07-22-1986	Craycraft et al.	
	AD	4,868,616	09-19-1989	Johnson et al.	
	AE	5,197,027	03-23-1993	Challa	
	AF	5,301,144	04-05-1994	Kohno	
	AG	5,412,493	05-02-1995	Kunii et al.	
	AH	5,429,968	07-04-1995	Koyama	
	AI	5,473,563	12-05-1995	Suh et al.	
	AJ	5,568,421	10-22-1996	Aritome	
	AK	5,621,683	04-15-1997	Young	
	AL	5,644,533	07-01-1997	Lancaster et al.	
	AM	5,703,382	12-30-1997	Hack et al.	
FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> -Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	AN	JA 62-142363	06-25-1987		
	AO	JA 62-155568	07-10-1987		
	AP	JA-2001-358237	12-26-2001		
	AQ	JA-2002-280467	09-27-2002		
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<sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04.

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	AR	5,715,194	02-03-1998	Hu	
	AS	5,751,012	05-12-1998	Wolstenholme et al.	
	AT	5,814,853	09-29-1998	Chen	
	AU	5,835,396	11-10-1998	Zhang	
	AV	5,898,615	04-27-1999	Chida	
	AW	5,923,587	07-13-1999	Choi	
	AX	5,926,415	07-20-1999	Shin	
	AY	5,940,321	08-17-1999	Takeuchi et al.	
	AZ	5,978,265	11-02-1999	Kirisawa et al.	
	BA	6,034,882	03-07-2000	Johnson et al.	
	BB	6,055,180	04-25-2000	Gudesen et al.	
	BC	6,107,658	08-22-2000	Itoh et al.	
	BD	6,185,122 B1	02-06-2001	Johnson et al.	

#### FOREIGN PATENT DOCUMENTS

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	BE					
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	BI	6,188,611 B1	02-13-2001	Endoh et al.	
	BJ	6,291,836	09-18-2001	Kramer et al.	
	BK	6,307,807 B1	10-23-2001	Sakui et al.	
	BL	6,326,269 B1	12-04-2001	Jeng et al.	
	BM	6,373,746 B1	04-16-2002	Takeuchi et al.	
	BN	6,434,053	08-13-2002	Fujiwara	
	BO	6,445,613	09-03-2002	Nagai	
	BP	6,469,933 B2	10-22-2002	Choi et al.	
	BQ	6,473,328	10-29-2002	Mercaldi	
	BR	6,477,077	11-05-2002	Okazawa	
	BS	6,490,194	12-03-2002	Hoengschmid	
	BT	6,498,747	12-24-2002	Gogl et al.	
	BU	6,512,703 B2	01-28-2003	Sakui et al.	

#### FOREIGN PATENT DOCUMENTS

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	BV					
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	BZ	6,515,888	02-04-2003	Johnson et al.	
	CA	6,545,898	04-08-2003	Scheuerlein	
	CB	6,567,312 B1	05-20-2003	Torii et al.	
	CC	6,597,609 B2	07-22-2003	Chevallier	
	CD	6,611,453	08-26-2003	Ning	
	CE	6,614,688 B2	09-02-2003	Jeong et al.	
	CF	6,618,292 B2	09-09-2003	Sakui	
	CG	6,621,743 B2	09-16-2003	Ogane	
	CH	6,822,903 B2	11-23-2004	Scheuerlein et al.	
	CI	6,849,905 B2	02-01-2005	Ilkbahar et al.	
	CJ	6,856,572 B2	02-15-2005	Scheuerlein et al.	
	CK	6,859,410 B2	02-22-2005	Scheuerlein et al.	
	CL	US RE. 35,838	07-07-1998	Momodomi et al.	

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	CQ	US-2002/0021587 A1.	02-21-2002	Sakui et al	
	CR	US-2002/0028541 A2	03-07-2002	Lee et al.	
	CS	US-2003/0155582 A1	08-21-2003	Mahajani et al.	
	CT	US-2004/0124415	07-01-2004	Walker et al.	
	CU	US-2004/0124466	07-01-2004	Walker et al.	
	CV	US-2004/0125629 A1	07-01-2004	Scheuerlein et al.	
	CW	US-2004/045024 A1	07-29-2004	Chen et al.	
	CX	US-6,108,238	08-2000	Nakamura et al.	
	CY	US-6,049,494	04-2000	Sakui et al.	
	CZ	US-5,991,202	11-1999	Derhacobian et al.	
	DA	US-5,812,457	09-1998	Arase	
	DB				
	DC				

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	DG					
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MAR 21 2005 U.S. PATENT & TRADEMARK OFFICE	
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#### NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of author (in CAPITAL LETTERS), title of article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	AA	DURISETY, CHANDRA SEKHAR ACHARYULU, "Analysis and Characterization of Single-Poly Floating Gate Devices in 0.35um PDSOI Process", A Thesis Presented for the Master of Science Degree, The University of Tennessee, Knoxville, December 2002, pp. i-viii and 1-80.	
	AB	EVANS, ROBERT J., ET AL., "Energy Consumption Modeling and Optimization for SRAM's," IEEE Journal of Solid-State Circuits, Vol. 30, No. 5, May 1995, pp. 571-579.	
	AC	JUNG, TAE-SUNG, ET AL., "A 117-mm <sup>2</sup> 3.3-V Only 128-Mb Multilevel NAND Flash Memory for Mass Storage Applications," IEEE Journal of Solid-State Circuits, Vol. 31, No. 11, November 1996, pp. 1575-1583.	
	AD	KAWAGOE, HIROTO, ET AL., "Minimum Size ROM Structure Compatible with Silicon-Gate E/D MOS LSI," IEEE Journal of Solid-State Circuits, Vol. SC-11, No. 3, June 1976, pp. 360-364.	
	AE	KIM, KYU-HYOUN, ET AL., "An 8-Bit-Resolution, 360- $\mu$ s Write Time Nonvolatile Analog Memory Based on Differentially Balanced Constant-Tunneling-Current Scheme (DBCS)," IEEE Journal of Solid-State Circuits, Vol. 33, No. 11, November 1998, pp. 1758-1762.	
	AF	KIM, BYUNGCHEUL, ET AL., "A Scaled SONOS Single-Transistor Memory Cell for a High-Density NOR Structure with Common Source Lines," Journal of the Korean Physical Society, Vol. 41, No. 6, December 2002, pp. 945-948.	
	AG	KIM, BYUNGCHEUL, ET AL., "Single Power Supply Operated and Highly Reliable SONOS EEPROMs," Journal of the Korean Physical Society, Vol. 40, No. 4, April 2002, pp. 642-644.	
	AH	KITANO, YOSHITAKA, ET AL., "A 4-Mbit Full-Wafer ROM," IEEE Journal of Solid-State Circuits, Vol. SC-15, No. 4, August 1980, pp. 686-693.	
	AI	LEE, YONG KYU, ET AL., "Multilevel Vertical-Channel SONOS Nonvolatile Memory on SOI," IEEE Electron Device Letters, Vol. 23, No. 11, November 2002, pp. 664-666.	
	AJ	LIN, HORNG-CHIH, ET AL., "Ambipolar Schottky-Barrier TFTs," IEEE Transactions on Electron Devices, Vol. 49, No. 2, February 2002, pp. 264-270.	
	AK	NAJEEB-UD-DIN ET AL., "Analysis of Floating Body Effects in Thin Film Conventional and Single Pocket SOI MOSFETs Using the GIDL Current Technique", IEEE Electron Device Letters, Vol. 23, No. 4, April 2002, pp. 209-211.	
	AL	NISHIHARA, TOSHIYUKI, ET AL., "A Quasi-Matrix Ferroelectric Memory for Future Silicon Storage," IEEE Journal of Solid-State Circuits, Vol. 37, No. 11, November 2002, pp. 1479-1484.	
	AM	PARK, KI-TAE, "Recent Non-Volatile Memory Device & Circuit Technology," Halo LSI Inc, (date unknown), 35 pages.	
	AN	ROIZIN, YAKOV, ET AL., "Plasma-Induced Charging in Two Bit per Cell SONOS Memories," Tower Semiconductor Ltd., Migdal HaEmek 23105, Israel, (date unknown), 4 pages.	

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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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### NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of author (in CAPITAL LETTERS), title of article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	AO	SHIN, JONGSHIN, ET AL., "A New Charge Pump Without Degradation in Threshold Voltage Due to Body Effect," IEEE Journal of Solid-State Circuits, Vol. 35, No. 8, August 2000, pp. 1227-1230.	
	AP	STURM, J. C., ET AL., "Leakage Current Modeling of Series-Connected Thin Film Transistors," IEEE Transactions on Electron Devices, Vol. 42, No. 8, August 1995, pp. 1561-1563.	
	AQ	SUGIBAYASHI, TADAHIKO, ET AL., "A 30-ns 256-Mb DRAM with a Multidivided Array Structure," IEEE Journal of Solid-State Circuits, Vol. 28, No. 11, November 1993, pp. 1092-1098.	
	AR	SUH, KANG-DEOG, ET AL., "A 3.3 V 32 Mb NAND Flash Memory with Incremental Step Pulse Programming Scheme," IEEE Journal of Solid-State Circuits, Vol. 30, No. 11, November 1995, pp. 1149-1156.	
	AS	TAKEUCHI, KEN, ET AL., "A Negative V <sub>th</sub> Cell Architecture for Highly Scalable, Excellently Noise-Immune, and Highly Reliable NAND Flash Memories," IEEE Journal of Solid-State Circuits, Vol. 34, No. 5, May 1999, pp. 675-684.	
	AT	THEAN, AARON, ET AL., "Flash memory: towards single-electronics," IEEE Potentials, October/November 2002, pp. 35-41.	
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	AV		
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